



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety Administration**

February 1, 2012

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

DOT-SP 14616
(SECOND REVISION)

EXPIRATION DATE: January 31, 2015

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Chlorine Service Co.
Kingwood, TX
2. PURPOSE AND LIMITATIONS:
 - a. This special permit authorizes the manufacture, marking, sale, and use of certain UN portable tanks conforming to the requirements of § 172.102(c)(7) PORTABLE TANK CODE T50 which are designed and constructed in accordance with Section VIII, Division 2 of the ASME Code instead of Section VIII, Division 1. The portable tanks, mounted in ISO frames, are authorized for the transportation in commerce of Division 2.1 and 2.2 materials. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 178.274(b) and 178.276(b)(1) in that tanks are designed, constructed, certified and stamped in accordance with Section VIII, Division 2 of the ASME Code with a design margin of 3.0:1;

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and § 178.276(a)(2) in that a design reference temperature less than 55°C is authorized as specified herein.

5. BASIS: This special permit is based on the application of Chlorine Service Co. dated November 30, 2011 submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Division 2.1 and 2.2 materials authorized for UN portable tanks (see PORTABLE TANK CODE T50).	2.1 or 2.2	As appropriate	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a UN portable tank conforming to the requirements of § 172.102(c)(7) PORTABLE TANK CODE T50 which are designed, constructed, certified and stamped "U2" in accordance with Section VIII, Division 2 of the ASME Code with a design margin of 3.0:1, including all applicable ASME Code Cases. Each portable tank must be constructed in accordance with the manufacturer's drawings, specifications and calculations on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA) and in accordance with the following requirements:

(1) Code: Tanks must conform to all the requirements for UN portable tanks in §§ 178.274 and 178.276 and with PORTABLE TANK CODE T50 in all respects except for the design code and design reference temperature. This special permit authorizes the use of Section VIII, Div. 2 of the ASME Code as the design code.

(2) Design pressure: The design pressure must be not less than the vapor pressure of the lading, including any gas padding, at a design reference temperature of 46.1°C (115°F) if bare and 40.6 °C (105°F) if insulated.

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(3) Material: EN 10028-1 P460 NL1 modified or SA612N or any material permitted by Section VIII, Div. 2 or by Code Case.

(4) Materials for supports welded without reinforcement (doubler plates) directly to the pressure boundary must comply with the requirements in AD-901 of Div. 2 of Section VIII of the ASME Code.

(5) Specific to Code Case 2261 "Alternative Rules for Design of Ellipsoidal and Torispherical Formed Heads". Finished openings in the knuckle area that exceed the lesser of 60mm(2-3/8") or 0.5r are not permitted unless suitable analysis to the requirements of AD-100(c) of Div. 2 of Section VIII of the Code, is submitted to OHMSPA for approval. The analysis is required to be stamped and approved by a Registered Professional Engineer experienced in the design of transport tanks and in such Div. 2 analysis.

(6) Tank capacity and pressure: The following range of designs is authorized:

Design pressure (see Note 1)	10.34 bar (150 psig) min; 34.48 bar(500 psig)
Water capacity	17,000 liters (4490 USWG) min.; 24,790 liters (6550 USWG) max.

Note 1: The design pressure means the "Maximum Allowable Working Pressure" as used in the ASME Code.

(7) Maximum Gross Weight: 34,000 kg (74,957 lbs.)

(8) Design Temperature Range: -40/55°C (-40/131°F) if bare or -40/50°C (-40/122°F) if insulated.

(9) G-Loadings: Vertical down - 2; Vertical up - 2;
Longitudinal - 2; Transverse - 2.

(10) Insulation: None. For a design reference temperature of 55°C (131°F), each tank must be provided with an optional sunshield; for a design reference temperature of 50°C (122°F), each tank must be insulated

(11) Baffles: 2.

(12) External Design Pressure: Full vacuum

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(13) Test Pressure: 1.3 times design pressure @ 55°C (131°F)

(14) Service equipment*: Liquid line: internal stop/excess flow valve** + external ball valve + blind flange with 82.5mm (3¼") screwed ACME cap; Vapor line: internal stop/excess flow valve** + external ball valve + blind flange with 44.5mm (1¾") screwed ACME cap; Pressure gauge: 0 - 60 bar (0-870 psig) pressure gauge with isolation valve; and Temperature gauge: - 60 to 100 °C (-76 to 212°F) gauge with no connection to pressure.

* all service equipment located within valve cabinet at rear of tank.

** internal valve machined with shear section and operated with remote cable tripped mechanically and thermally.

(15) NDE: 100% RT of all butt welds, MT or PT all fillet welds.

(16) Pressure Relief Device: Fort Vale 006/***** 76mm (3") flanged pressure relief valve set @ 100% design pressure @ 55°C (131°F) preceded by an (optional) rupture disc.

b. TESTING -

(1) Hydrostatic test certificates for each tank must be maintained by the owner and made available upon request to any representative of DOT.

(2) A test report documenting a satisfactory ISO prototype test for each tank design must be on file with OHMSPA prior to the first shipment.

(3) Each tank must be inspected, tested, and repaired as specified in § 180.605 for UN portable tanks.

c. OPERATIONAL CONTROLS -

(1) The pressure produced by the lading and any gas padding at 46.1°C (115°F) may not exceed the design pressure of the portable tank.

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(2) Each portable tank must be filled by weight.

(3) Each tank must be visually inspected prior to shipment to ensure that it has not been damaged during loading. Any unsafe condition must be corrected prior to the tank's use.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but receives a packaging covered by this special permit, may offer or reoffer it for transportation provided no modification or change is made to the packaging or its contents and it is offered for transportation in conformance with this special permit and the HMR.

c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this special permit must be marked with a registration symbol designated by the Office of Hazardous Materials Special Permits and Approvals for a specific manufacturing facility in accordance with 49 CFR 107.705.

e. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.

f. In addition to markings specified in § 178.274(i), each portable tank must be plainly marked on both sides near the middle, in letters and numerals at least two inches high on a contrasting background, "DOT-SP 14616".

g. The following documentation must be submitted to and acknowledged in writing by OHMSPA prior to the first shipment in any portable tank design:

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- (1) Design drawings for each new portable tank design.
 - (2) ASME certificate of accreditation indicating a current/valid ASME "U2" stamp.
 - (3) RPE-stamped User Design Specification/Manufacturer's Design Report (ref. AG - 301/302 of Section VIII-Div. 2 of the ASME Code) and stress/fatigue analysis (ref. Appendices 4 and 5 of Section VIII-Div 2 of the ASME Code).
 - (4) The designated approval agency must verify compliance with all requirements of §§ 178.274 and 178.276 and PORTABLE TANK CODE T50 as modified by this special permit.
 - (5) Suitable calculations to show that the actual venting capacity of the pressure relief devices provided on each tank exceeds the capacity required for each gas listed on the product plate as calculated in accordance with § 178.276(f).
 - (6) Prior to use in Offshore Service under the terms of this special permit, additional information justifying such use must be submitted to and acknowledged in writing by the AAHMS.
- h. Transportation of Division 2.1 materials (flammable gases) are not authorized aboard cargo vessel unless specifically authorized in the Hazardous Materials Table (§ 172.101).
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, and cargo vessel.
 10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel or motor vehicle used to transport packages covered by this special permit.
 11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
 - o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

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- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety -- OHMSPA, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety

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Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: SSTANISZEWSKI